Monitoring Data Record

Project Title: Cashiers (R-2224A) COE Action ID: 200230408
Stream Name: unnamed tributary to the Thorpe Reservoir DWQ Number: 000536
City, County and other Location Information: Sta. 136+00LT on NC 107 N of Cashiers
Date Construction Completed: December 2003 Monitoring Year: (3) of 5
Ecoregion: 8 digit HUC unit 06010203
USGS Quad Name and Coordinates:
Rosgen Classification:
Length of Project: 948' Urban or Rural: Urban Watershed Size:
Monitoring DATA collected by: M. Green and J. Young Date: 2/27/07
Applicant Information:
Name: NCDOT Roadside Environmental Unit
Address: 1425 Rock Quarry Rd. Raleigh, NC 27610
Telephone Number: (919) 861-3772 Email address: mlgreen@dot.state.nc.us
Consultant Information:
Name:
Address:
Telephone Number: Email address:
Project Status: Complete

Monitoring Level required by COE and DWQ (404 permit/ 401 Cert.): Level (**1**) ~~2~~ ~~3~~
Monitoring Level 1 requires completion of *Section 1, Section 2 and Section 3*
Permit States: NCDOT shall perform the following components of Level I monitoring twice each year for the 5 year monitoring period (summer and winter): Reference photos, plant survival, and visual inspection of channel stability. If less than two bankfull events occur during the first 5 years, NCDOT shall continue monitoring until the second bankfull event is documented. The bankfull events must occur during separate monitoring years. In the event that the required bankfull events do not occur during the 5 year monitoring period, the USACE, in consultation with resource agencies, may determine that further monitoring is not required.

Section 1. PHOTO REFERENCE SITES
(Monitoring at all levels must complete this section)

Total number of reference photo locations at this site: 4 reference points, 2 photos at each

Dates reference photos have been taken at this site: 12/30/04, 1/05/05, 5/31/05, 10/18/06, 2/27/07
Individual from whom additional photos can be obtained (name, address, phone):

Other Information relative to site photo reference:

If required to complete Level 3 monitoring only stop here; otherwise, complete section 2.

Section 2. PLANT SURVIVAL
Attach plan sheet indicating reference photos.

Identify specific problem areas (missing, stressed, damaged or dead plantings):
Some replanting should take place in 2007 due to the buffer area being mowed and the minimal woody vegetation along the streambanks.

Estimated causes, and proposed/required remedial action:

ADDITIONAL COMMENTS: Vegetation is dormant at this time. Woody vegetation is minimal along the streambank and in the buffer area but did include dogwood, rhododendron, tulip poplar, northern red oak, white pine, red maple, green ash, birch, and various grasses.

If required to complete Level 1 and Level 2 monitoring only stop here; otherwise, complete section 3.

Section 3. CHANNEL STABILITY

Visual Inspection: The entire stream project as well as each in-stream structure and bank stabilization/revetment structure must be evaluated and problems addressed.

Report on the visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. Include a discussion of any deviations from as-built and an evaluation of the significance of these deviations and whether they are indicative of a stabilizing or destabilizing situation.

This is the Year 3 Winter evaluation of this stream relocation. The stream relocation is stabilized except for some bank erosion below the driveway culvert that was noted during the Summer 2005 evaluation of the site. Funding has now been set up to get the streambanks repaired, upgrade the culvert, and replant the site. This work should take place in April 2007.

Date Inspected	Station Number	Station Number	Station Number	Station Number	Station Number
Structure Type					
Is water piping through or around structure?					
Head cut or down cut present?					
Bank or scour erosion present?					
Other problems noted?					

NOTE: Attach separate narrative sheets to each monitoring report describing/discussing the overall monitoring results. Include the identification of specific problem areas/channel failures, estimated cause and proposed/required remedial action. This should include a brief discussion of any parameter that has changed significantly from as-built.

Cashiers Stream

Photo 1 (Upstream)

Photo 2 (Downstream)

Photo 3 (Upstream)

Photo 4 (Downstream)

Photo 5 (Upstream)

Photo 6 (Downstream)

Year 3 – February 2007

Cashiers Stream

Photo 7 (Upstream)

Photo 8 (Downstream)

Year 3 – February 2007